Bringing the Blastophaga to California

From a paper by Mr. George C. Roeding at the Fruit Growers' Convention In Marysville.

My first paper on the Smyrna fig was read in Marysville before the Fruit Growers' Convention of 1891. It was at a time when the whole subject of caprification was regarded as a myth, and its followers (and there were but few) as self-illusionized cranks. My paper was prepared with the utmost care, and my experimental work carefully detailed. My paper was followed by one written by the late B. M. Lelong, then secretary of the board, in which the whole subject of caprification was held up to ridicule. In the annual report of the same year, the so-called male and female blastophaga were illustrated. The male happened to be the female and the female shown in reality was the parasite philotrypesis, which fortunately for us failed to become established when the fig wasp was introduced. Prof. C. V. Riley, then chief of the division of entomology of the U. S. Department of Agriculture, and who was enthusiastic in his belief in the ultimate success of Smyrna fig culture in California, severely criticized Mr. Lelong later, for his lack of knowledge on this subject.

That California Memorial.—I do not wish to burden you with all the details relative to the final and successful introduction of the fig wasp, except to say that it was sent to me several times by correspondents and although the insects issued from the

figs, our caprifigs were evidently not in condition to receive them, and they failed to establish themselves. For years, I had endeavored to interest various secretaries of the U. S. Department of Agriculture in the subject without success. It was not until my friend, Mr. B. N. Rowley, now deceased, proprietor and editor of the California Fruit Grower, who, by the way, was also skeptical on the subject of caprification, finally consented after my repeated demonstrations that there was something in it, to bring the matter before the State Board of Trade. I sent him specimens of figs produced by artificial pollination, caprifigs, etc., and he delivered an address on the subject. As a result of this conference a committee was appointed consisting of Messrs. Rowley, Maslin, and Filcher, to draft a letter to Hon. James Wilson, Secretary of Agriculture. This letter went into the subject fully and as a result of it, Mr. Wilson promptly communicated with Dr. L. O. Howard, Chief of the Division of Entomology, and Mr. Walter K. Swingle, Agricultural Explorer for the Division of Seed and Plant Introduction, who was then studying in Italy in the interests of his division.

Several consignments of insects were sent me in March and April in the years 1898 and 1899, and I took care of the infested figs, placing them under trees which had been previously inclosed in canvas tents. Former experiments along the same line in earlier years had always resulted in failures, and I anticipated no better success with these latter shipments, but nevertheless determined to give the insects every care. Much to my surprise, in June, 1899, I discovered by accident that the

wasp after so many years of uninterrupted effort on my part had finally consented to be listed among our prize emigrants.

Mr. Maslin's Fig Work.—Since success often leads to forgetfulness, I desire to say a few words in honor of a man who never lost faith in the future of this industry, but devoted time, money and land for the purpose of carrying out his experiments. This was E. W. Maslin, who did not complete his work because he sold his ranch to engage in other pursuits. It was he who as far back as 1885 fully realized the inferiority of figs grown in California as compared with the world-famous Smyrna figs. In the years of 1885-6 he purchased the best dried Smyrna figs the market afforded, washed out the seeds, planted them in boxes, and, when the seedlings were large enough, put them out in orchard form on his farm in Loomis, Placer county. Much time and care were bestowed on the trees, and Mr. Maslin looked forward with fond hopes to a successful realization of his well-directed efforts. As the trees grew, Mr. Maslin got the impression that all were of the same type, and my recollection of the orchard in its infancy coincided, as near as I can remember, with his views. The following is an extract from an essay read by him before the Twelfth State Fruit Growers' Convention held in Fresno in 1889:

"One fact to which I wish to call attention, and a very important one, in relation to the necessity of caprification, is that the leaves of all the fig trees grown from seed and obtained from Thurber are identical in type."

The orchard has almost passed out of my mind, and in fact I thought it had been dug up and destroyed long before I succeeded in establishing the blastophaga, when my attention was attracted to a fig orchard near Loomis, while seated on an observation car of a train eastward bound. It dawned on me that what I saw was the remnant of the old Maslin orchard, which, in spite of the fact that it had been sadly neglected for a number of years, many of the trees were alive and growing. The insect had already been introduced into the caprifigs of my friend, Mr. D. Van Lennep of Auburn, and he kindly consented to send infested figs to this orchard at the proper time. After the insect became established, I visited the orchard several times and made a careful and complete record of it, and although there was not one-third of it standing, seven eighths of the trees were capri or wild figs, and hardly two of these were alike, entirely upsetting the ideas advanced by Mr. Maslin in 1889.

Another prediction made by Mr. Maslin read as follows: "We are on the threshold of entering upon a great industry. Fig culture, I confidently believe, will in five years rank in importance with that of the raisin, prune and grape." You are right, old friend, but you miscalculated the time, for if you had said twenty years instead of five you would have been about correct.

Effects of Introduction of the Blastophaga.—When I demonstrated that the blastophaga had concluded to dwell with us and harvested my first crop of figs of any importance in

1901, I thought I had accomplished something which would benefit California, for I had expended thousands of dollars in my investigations, and had taken care of a 60-acre fig orchard without deriving one cent from it for a period of fourteen years. I had counted too securely on my success, and soon learned that even after I had demonstrated that California Smyrna figs were all I represented them to be, the public was doubtful. Many thought the trees would not bear and that the insect would soon disappear. My experience is only a repetition of what others have been compelled to pass through before their efforts receive recognition. Today many of the old trees of the San Francisco Bulletin importation of 1882, which have been allowed to grow practically forgotten and uncared for, are producing fine figs, much to the surprise and gratification of their owners, who had never seen figs on them before.

Local Knockers.—Do you know what the general public says of me at home? That my orchard never bears; that Smyrna figs are a failure in the San Joaquin valley, and furthermore, that I don't care whether they bear or not because I have too much money anyway. It reminds me of an experience of mine in Santa Rosa. I, a stranger, spoke to several people for the purpose of learning how Luther Burbank was regarded, and to my surprise the answer was that he either "had wheels or was crazy." And Burbank is the biggest advertisement Santa Rosa has ever had! If the narrow minded only knew what was good for them and their town, they would never lose an opportunity of extolling Burbank's many excellent qualities, instead of having their little hammer out, trying to knock him. How ill-founded have been

the reports regarding my orchard, is shown by the following facts: Since 1901, it has never failed to produce a crop and since 1902 the crop has not been less in any one year than 50 tons, and this year we have harvested 90 tons. Had I known seven years ago what I know today, my crops would have been 30 % larger annually than they have been, but changes in a matter of this kind are not brought about in a single year or even several years, so that it took some time to bring about the desired change in existing conditions.

I learned when I visited Smyrna in 1901 that their knowledge of the blastophaga was not only very limited, but also that people who should possess information on a subject of so vital importance to one of their great industries, knew far less than I did. Had I not gone fully equipped with specific information, I would have returned more mystified than when I went. Those who have planted orchards in recent years have had the benefit of my experience and observations, thus there is no possibility of their making any mistakes providing my instructions are followed. If anyone is in a position to discuss this subject intelligently, I think I am. My investigations in Smyrna, my observations at home, and finally the fact that my orchard has brought in returns amounting to over $40,000 since the wasp has been established, is sufficient evidence for insisting that the culture of the Calimyrna fig is an unqualified success. I want to say to you, ladies and gentlemen, that the successful prosecution of this industry has been my life work. I believe that Smyrna fig culture has not only a great future in California, but also in other countries with climates similar to those of our

great interior valleys. Do not think for a moment that the man who withstood ridicule, even after he had demonstrated that Smyrna figs could be produced by artificial pollination; who made a desperate and successful effort to prevent the digging up of the 60-acre Smyrna fig orchard on the grounds of the original Fancher Creek Nursery (before he came into possession of that place); and who finally, after repeated failures, succeeded in establishing the little wasp, on which the whole foundation of Smyrna fig culture rests, is going to give up one iota of what he has achieved by his own initiative and against great odds?

Outlook of Fig Culture.—To most of you who are familiar with our horticultural development in its early history, the reason is obvious why fig culture has not kept pace with our citrus and deciduous fruits. All the California figs belonging to what is known as the Adriatic type, and which are produced without the agency of the fig wasp, are decidedly inferior from every point of view to the Smyrna type. This is a well-known fact to the trade and is really the cause for the lack of demand for our dried figs. The output of California dried figs has never exceeded 2,500 tons annually, while the annual output of Smyrna figs from Asia Minor in the Meander Valley (84 miles long and only a few miles wide, where all the Smyrna figs are grown) amounts to 100,000 camel loads or 25,000 tons, more than ten times the quantity produced in this State. Do you know that 30,000 people are engaged in handling that one crop during the harvesting season and furthermore that the United States is today the greatest consumer of these figs and all this

in spite of the duty? And do you know that California is destined by reason of climate, soil, and the establishment of the blastophaga to wrest this trade from Asia Minor, and divert it to our own people? Is this not of itself an irrefutable answer in the affirmative that Smyrna fig culture is not only feasible but highly profitable in this State?

Excerpted from Pacific Rural Press, Volume 73, Number 25, 21 December 1907, page 390. OCR text corrected, edited, and formatted by Lance Knoechel.